

CLAIMS

1. An image sensor module comprising:

a case;

5 a photoelectric converter positioned within the case
and having a light receiving surface; and

a first optical unit provided within the case and
forming an image of a subject on the light receiving
surface;

10 wherein the image sensor module further comprises
a second optical unit having a different light path to
the first optical unit and provided within the case for
forming an image of the subject on the light receiving
surface of the photoelectric converter; and

15 switching is possible between imaging of the subject
using the first optical unit and imaging of the subject
using the second optical unit.

2. An image sensor module according to Claim 1, wherein
20 the first and second optical units each have an
image-forming lens, and a light path from the
image-forming lens of the second optical unit to a first
position where the image of the subject is formed is longer
than a light path from the image-forming lens of the first
25 optical unit to a second position where the image of the
subject is formed.

3. An image sensor module according to Claim 1, wherein the first optical unit is employed for standard imaging, and the second optical unit is employed for standard imaging with a narrower view angle during imaging than
5 the first optical unit, or for telescopic imaging.

4. An image sensor module according to Claim 2, wherein the photoelectric converter comprises an image sensor chip, and the image sensor chip is movable to the first
10 and second positions.

5. An image sensor module according to Claim 4, further comprising a substrate on which the image sensor chip is mounted, and an operating mechanism for moving the
15 substrate relative to the case to bring the image sensor chip to the first and second positions.

6. An image sensor module according to Claim 5, wherein the operating mechanism includes a cover attached to the
20 substrate and enclosing the image sensor chip, and a guide provided on the case for slidably guiding the cover.

7. An image sensor module according to Claim 4, further comprising an optical filter passing only light of
25 specific wavelengths proceeding to the image sensor chip, wherein the optical filter is movable together with the image sensor chip.

8. An image sensor module according to Claim 2, wherein the photoelectric converter comprises first and second image sensor chips positioned at the first and second positions, respectively.

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9. An image sensor module according to Claim 8, wherein on-off drive of the first and second image sensor chips is switchable.

10 10. An image sensor module according to Claim 2, wherein the first optical unit has an optical axis extending linearly from the image-forming lens to the first position, and the second optical unit has a bent optical axis extending from the image-forming lens to the second
15 position.

11. An image sensor module according to Claim 10, wherein the second optical unit includes light-reflecting means for reflecting light an even number of times.

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12. An image sensor module according to Claim 11, wherein the light reflecting means has a first light reflecting surface for causing light proceeding in a first direction from a front side of the subject towards the case to be
25 reflected in a second direction intersecting the first direction, and a second light reflecting surface for causing light from the first light receiving surface to

be reflected in the first direction towards the second position.

13. An image sensor module according to Claim 12, wherein
5 the light-reflecting means includes a transparent member having a plurality of surfaces, two of the plurality of surfaces serving as the first and second light reflecting surfaces, the first and second light reflecting surfaces providing total reflection of light proceeding from the
10 subject.

14. An image sensor module according to Claim 11, wherein the light-reflecting means includes a plurality of mirrors.

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15. An image sensor module according to Claim 12, wherein the first and second optical units mutually overlap in the second direction.

20 16. An image sensor module according to Claim 2, wherein the second optical unit has fewer lenses than the first optical unit.

17. An image sensor module according to Claim 2, wherein
25 each of the first and second optical units has a light incident side provided with an aperture, and the aperture of the second optical unit has a larger opening than that

of the first optical unit.

18. An image sensor module according to Claim 2, wherein
the image-forming lens of at least one of the first and
5 second optical units is positionally adjustable in the
optical axis direction.

19. An image sensor module according to Claim 2, wherein
the second position is closer to the first position than
10 it is to an incident optical axis of the second optical
unit.

20. An image sensor module according to Claim 2, wherein
an incident optical axis of the second optical unit is
15 closer to the first position than it is to the second
position.

21. An image sensor module according to Claim 1, further
comprising a third optical unit provided in the case and
20 having an optical path different from the optical paths
of the first and second optical units for forming an image
of the subject on the light receiving surface of the
photoelectric converter, wherein switching to imaging
of the subject using the third optical unit is possible
25 in addition to imaging of the subject using the first
and second optical units.

22. An image sensor module according to Claim 21, wherein the photoelectric converter comprises an image sensor chip, and the image sensor chip is movable to positions where images of the subject are formed in the first through
5 third optical units.

23. An image sensor module according to Claim 21, wherein the photoelectric converter comprises first through third image sensor chips provided in corresponding relationship
10 to the first through third optical units.

24. An image sensor module, comprising:

a case;

a substrate mounted at a bottom portion of the case;

15 an image sensor chip mounted on the substrate and having a light-receiving surface directed toward a front side of the case; and

an optical unit provided within the case and forming an image of a subject on the light-receiving surface;

20 wherein the optical unit has a first light reflecting surface for causing light proceeding in a first direction from the front side of the case towards the case to be reflected in a second direction intersecting the first direction, and a second light reflecting surface for
25 causing light reflected by the first light reflecting surface to be reflected in the first direction towards the light receiving surface.